

REMARKS

Claims 15-28 were presented for examination in the present application. The instant amendment cancels claims 23-28 without prejudice and adds new claims 29-35. Thus, claims 15-23 and 29-35 are presented for consideration upon entry of the instant amendment.

The instant amendment amends claims 15, 17, and 19-22 to correct obvious errors. For example, claims 15, 17, and 21 have been amended to change "said channel" to "said cage-type skull channel" for purposes of properly referring back to the earlier introduced element.

Claim 15 has also been amended to change "a cage-type skull channel open toward a top" to "a cage-type skull channel having an open top" for purposes of properly defining the later referred to open top.

Claims 19 and 20 have been amended to change "a melt" to "said melt" to properly refer back to the earlier introduced melt.

Further, claim 22 has been amended to provide proper antecedent basis to all claim elements, namely to change "an additional heating unit provided between transition regions of individual coils" to "an additional heating unit provided in a transition region defined between said plurality of flat coils and a second plurality of flat coils".

It is respectfully submitted that the amendments to claims

15, 17, and 19-22 merely make explicit what had been implicit in the claims.

Claims 23-28 have been cancelled without prejudice rendering the rejections of these claims under §112 and §103 moot. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 15-17 were rejected under 35 U.S.C. §102(b) over U.S. Patent No. 4,049,384 to Wenckus et al. (Wenckus). In addition, claims 18-20 were rejected under 35 U.S.C. §103(a) over Wenckus in view of U.S. Patent No. 5,383,949 to Bubon et al. (Bubon), and claims 21-22 were rejected under 35 U.S.C. §103(a) over Wenckus in view of Japanese Patent No. 57-095834 to Masakiyo (Masakiyo).

It is respectfully submitted that claim 15 is not disclosed or suggested by Wenckus or Wenckus in view of Bubon or Masakiyo. Claim 15 provides, among other elements, a cage-type skull channel and a high-frequency oscillation circuit having an induction coil. The cage-type skull channel channels a melt of the glasses or glass ceramics in a substantially horizontal flow direction. The induction coil is disposed about a portion of the channel such that the open top is free of the induction coil.

It is submitted that the device of Wenckus is a crucible and not a channel as provided by claim 15. As such, the crucible of Wenckus has a vertical melt flow direction, and not the horizontal flow of claim 15.

Specifically, Wenckus is directed to a cold crucible system including two half assemblies 10 and 11 each formed of a plurality of copper tubes 12 having fluid-tight end caps 13. See Col. 3, lines 40-50. In addition, Wenckus provides means to impart translational motion to such a rod 90, in the form of a rack, engaging a pinion 75 driven by motor 76. The crystal is pulled from melt 91 contained in the solid shell 92 of the material being processed. See Col. 6, lines 30-35, as well as FIG. 6.

Thus, it is submitted that the cold crucible having vertical flow of Wenckus does not disclose or suggest the skull channel having a horizontal flow of claim 15.

Bubon is directed to a glass foreheart having a molten glass conveying channel 10 capped by a pair of roof portions 12. Here, gas fired burners 16 or a pair of gas fired pilot burners 36 or an electrical heating element 34 are used. See Col. 1, line 61 through Col. 2, line 40. Thus, Bubon clearly does not disclose or suggest the open channel having an induction coil as in claim 15.

Masakiyo is directed to a closed melting chamber 4 having work coils 10A, 10B enclosing the melting containers. See Patent Abstract of Masakiyo, as well Figures 1 and 2. Thus, Masakiyo clearly does not disclose or suggest the open channel as in claim 15. In addition, Masakiyo also clearly does not disclose or suggest the induction coil disposed about a portion of the channel such that the open top is free of the induction coil as in claim 15.

For at least the reasons set forth above, claim 15 is believed to be in condition for allowance. Since claims 16-22 depend from the aforementioned claim 15, they are also believed to be in condition for allowance. Reconsideration and withdrawal of this rejection to claims 16-22 is respectfully requested.

Claims 29-35 have been added to point out various aspects of the present application. Support for new claims 29-35 can be found at least in original claims 1-14.

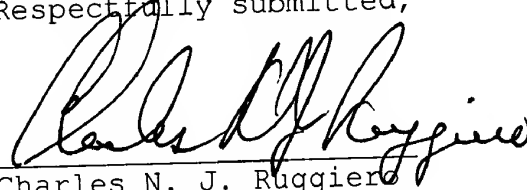
It is also believed that claims 29-35 are in condition for allowance. For example, claim 29 provides, in part, positioning a first inductive heating source with respect to the channel so that its open top remains open and activating the first inductive heating source so that the melt flows in a horizontal direction.

It is respectfully submitted that the cited art does not disclose or suggest the method of claim 29. Claim 29, as well as claims 30-35 that depend therefrom, are therefore believed to be in condition for allowance.

In view of the above, it is respectfully submitted that the present application is in condition for allowance. Such action is most earnestly solicited.

If for any reason the Examiner feels that consultation with Applicants' attorney would be helpful in the advancement of the prosecution, he is invited to call Applicant's attorney at the telephone number below for an interview.

Respectfully submitted,



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